

AMENDMENTS TO THE SPECIFICATION

Objections to the specification

At page 2, please replace the paragraph beginning at line 23 and ending at line 26 with the following paragraph:

Yet, it has also ~~unexpectedly~~ unexpectedly been found that, just in some body districts and organs, sulfatases exist which, under particular physiological conditions and situations, are able to convert again T_3S into its active form T_3 (Ref's.7-9).

At page 3, please replace the paragraph beginning at line 17 and ending on page 4, line 6 with the following paragraph:

Further studies have been performed to ascertain the effective role played by T_3S during production and metabolism of thyroid hormones. Said studies have recently demonstrated that it shows thyromimetic effects in hypothyroid rats (Ref.10) as well as in euthyroid rats (Ref.14). In both cases T_3S has shown a potency of around one fifth that of T_3 . Moreover both treatments with T_3S and with T_3 produced a significant reduction of serum levels of thyrotropic hormone (TSH) in euthyroid rats, thus showing to possess similar capability in inhibiting its secretion. On the contrary, in the case of hypothyroid rats, T_3S showed a poor capability of inhibiting TSH secretion when compared to T_3 . It is well known that TSH is a highly responsive indicator to the functional status of thyroid gland and consents to detect the smallest alterations of its hormonal secretion. Actually, its levels are higher under conditions of reduced thyroid functionality, even in those conditions that are defined as sub-clinical, while they are reduced when an excess of thyroid hormones are present. Accordingly, T_3S seems ~~unexpectedly~~ unexpectedly non-comparable to T_3 as far as its capability of inhibition on formation of TSH is involved.

At page 4, please replace the paragraph beginning at line 19 and ending at line 21 with the following paragraph:

As a result, today the skilled technician is still facing a complex, somewhat conflicting, situation, which ~~highlights~~ highlights only some of the biological characteristics of the product and needs more exhaustive in depth studies.

At page 5, please replace the paragraphs beginning at line 15 and ending at line 20, and beginning at line 23 and ending at line 27 with the following paragraph:

It has now ~~unexpectedly~~ unexpectedly been found, and this is one of the aspects of the present invention, that T_3S , as such or in association with other thyroid hormones or pro-hormones, preferably T_4 , and properly formulated according to the desired application, is particularly useful as a medicament to be used in all those pathologies caused by insufficient production by the body of the needed quantities of active thyroid hormones, in particular T_3 .

In fact, it has ~~unexpectedly~~ unexpectedly been found that the administration of T_3S , contrary to what known about its normal metabolism, allows to maintain steady levels of T_3 in the body for long times (from 12 to 18 hrs) and that results particularly useful in those cases in which it is needed to supplement thyroid hormone in its most active form.

At page 6, please replace the paragraphs beginning at line 20 and ending at line 24 with the following paragraph:

On the contrary, the association of the invention avoids the above problems, because it has ~~unexpectedly~~ unexpectedly been found that, for example, after oral administration, T_3S provides T_3 serum levels that increase in a gradual way and keep steady for long periods of time, thus preventing the formation of too much high peaks.

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